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## RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

**Ex parte BENJAMIN HERZHAFT, MARCEL ROPARS, THEIRRY HUARD, and LAURENT NEAU**

Appeal 2009-006301  
Application 10/797,004

**Oral Hearing Held: Wednesday, September 9, 2009**

22Before BEVERLY A. FRANKLIN, LINDA M. GAUDETTE, and  
23KAREN M. HASTINGS, Administrative Patent Judges

## 27ON BEHALF OF THE APPELLANTS:

AYAL I. SHARON, ESO,

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1           The above-entitled matter came on for hearing on Wednesday,  
2September 9, 2009, commencing at 1:05 p.m., at the U.S. Patent and  
3Trademark Office, 600 Dulany Street, 9th Floor, Hearing Room A,  
4Alexandria, Virginia, before Lori Beth Allen, Notary Public.

5JUDGE FRANKLIN: Good afternoon, Mr. Sharon.

6           MR. SHARON: Excuse me?

7           JUDGE FRANKLIN: I said good afternoon.

8           MR. SHARON: Good afternoon.

9           JUDGE FRANKLIN: And if you have a business card, you can  
10give it to our court reporter, to help you with the names.

11           JUDGE FRANKLIN: I thank you.

12           And as you know, you have 20 minutes to present your case.

13You can begin when you're ready.

14           MR. SHARON: Okay. I presume you're already familiar with  
15the invention. But I will review the first independent claim in order to  
16provide some background for the remainder of my arguments.

17           Okay. The first independent claim is directed to a method for  
18estimating the quantity of carbon dioxide present in a geologic formation.

19           And the method includes the steps of penetrating the formation  
20with a well drilled from the surface, contacting the formation with a drilling  
21fluid, having a pH greater than 8, that travels from the formation to the  
22surface, sampling a given quantity of the return fluid, transferring that  
23quantity to a cell, measuring the pH of that quantity of fluid, acidifying that  
24fluid, so that the pH is less than 4, measuring the carbon dioxide level of the

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1gas in the cell, and then calculating the quantity of carbon dioxide contained  
2in the geologic formation, based on that measurement.

3                 Now the Examiner rejected Claim 1, with a 103 rejection, using  
4the references Jones and Kelley. And this combination, neither of the  
5references disclosed the step of calculating the quantity of carbon dioxide  
6contained in a geologic formation.

7                 They don't do so individually, they don't do so in combination.  
8And in addition, the motivation that the Examiner provided for combining  
9the references in his Examiner's Response, he pointed to our specification as  
10the motivation for combining.

11                 And that is not prior art. That is the motivation for our  
12invention. And for that reason, we request that the rejection be withdrawn,  
13and that the claims be allowed.

14                 Independent Claim 7 is a device claim that recites similar  
15limitations as Claim 1, and then the remainder of the claims are dependent  
16on either Claim 1 or on Claim 7.

17                 JUDGE HASTINGS: For Claim 1, the Examiner says in her  
18Examiner's Answer that the reason for combining is that annular gas  
19pressures and contents are very important to drilling procedures and well  
20known in the art to be.

21                 Are you rebutting that statement? I know later on she addresses  
22your specification also.

23                 MR. SHARON: Yes.

11

1 JUDGE HASTINGS: But in the rejection itself, she doesn't  
2 address your specification. She just says that gas pressures and contents are  
3 very important and well known to be.

4 MR. SHARON: Right. Well, our argument is that that is not  
5 obvious from the references that were presented in the rejection. Especially,  
6 from the secondary reference, the Kelley reference, which is directed to  
7 analyzing carbon dioxide in bodily fluids, such as serum plasma and urine.

8 The figures, for example, in that reference are expressly  
9 directed towards -- I can give you some citations for that -- for example,  
10 column 3, lines 8 to 12, Kelley recites that there is shown in Figures 1 and 2  
11 apparatus for measuring the carbon dioxide content of a fluid sample, such  
12 as blood serum or urine.

13 And then on column 5, lines 34 to 36, it says, "In the position  
14 shown in Figure 8A, a sample of the material is analyzed." And then in  
15 parentheses: (serum or urine).

16 So our position is that --

17 JUDGE HASTINGS: Right, but don't you agree -- she points  
18 that there are other parts of the reference that say it is for many different  
19 fluids, including industrial wastes and industrial process fluids.

20 MR. SHARON: Right. There is one sentence which says that;  
21 however, even industrial waste, it does not refer to a geologic formation,  
22 which is expressly in our claim.

23 JUDGE HASTINGS: And going back to your specification, as  
24 you alluded to, the Examiner says that your specification establishes CO<sub>2</sub>  
25 measurement in geological formations to be known.

15

1           And then she says it's "to be known motivation to determine  
2methods of sampling in situ." What is your response to that exactly? What  
3is your specification admitting?

4           MR. SHARON: Our specification does not discuss prior art at  
5all, our specification is directed towards our invention. There is no  
6admission of prior art or something equivalent to that in our specification.

7           JUDGE HASTINGS: How about the page 2 of your  
8specification that says, "At the present time, the steps taken after the fact on  
9samples of reservoir rock taken from the well do not offer sufficient safety. .  
10.", isn't that an admission of prior art, that that's how they determine how  
11much CO<sub>2</sub> is in a rock formation?

12          MR. SHARON: Could you give me a moment please?

13          JUDGE HASTINGS: Yeah. It's the last sentence of the second  
14full paragraph on page 2, at least on my printout.

15          MR. SHARON: Yes. I was mistaken, Your Honor.

16          JUDGE HASTINGS: I guess that we're struggling a little bit to  
17understand what exactly the specification does admit to be known.

18          And then it follows up with "Gas analysis devices contained in  
19the drilling fluid are known, but none of them enable the CO<sub>2</sub> to be precisely  
20measured."

21          Can you elucidate on what that sentence means?

22          MR. SHARON: Well, as I mentioned earlier, the Kelley  
23reference is directed towards the measurement of serum of bodily fluids; it's  
24not directed towards measuring the carbon dioxide in the geologic structure,  
25as we recite in our claim.

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1           And the use of Kelley for that purpose would not be obvious.  
2 Kelley has a very broad statement about industrial waste; but a petroleum  
3 engineer, who would be drilling for petroleum, would not think to look in  
4 this bodily fluid testing equipment in order to determine the CO<sub>2</sub> of a  
5 petroleum well.

6           JUDGE HASTINGS: Well, that wasn't my question. But my  
7 question was what are you referring to in your spec., when your spec. says  
8 "Gas analysis devices contained in the drilling fluid are known, but none of  
9 them enable the CO<sub>2</sub> to be precisely measured"?

10          Are they admitting that gas analysis devices that measure CO<sub>2</sub>  
11 are known, which is what the Examiner appears to be saying, but that they're  
12 just not precise?

13          MR. SHARON: To the best of my knowledge, the prior art is  
14 to take a sample and then test it after a long period of time --

15          JUDGE HASTINGS: A sample of what?

16          MR. SHARON: Of the petroleum.

17          JUDGE HASTINGS: Oh.

18          MR. SHARON: And not to do so as we recite in our claim.

19          Are there any other questions?

20          JUDGE FRANKLIN: Are there further questions --

21          JUDGE HASTINGS: No.

22          Thank you for coming today.

23          MR. SHARON: Thank you

24          Whereupon, at approximately 1:15 p.m., the proceedings were  
25 concluded.